

What is claimed is:

1. A powder driven fastening tool comprising:  
a channel for feeding a strip of cartridges to a firing mechanism;  
a trigger for actuating the firing mechanism, the trigger being movable between a first position and a second position;  
an advancing lever pivotally coupled to the tool, the advancing lever having a strip engagement portion extending into the channel for indexing the strip;  
an advance link cammingly engaged with the advancing lever and operationally associated with the trigger;  
the strip engagement portion being in a first position in the channel when the trigger is in the first position; and  
the strip engagement portion being in a second position in the channel when the trigger is in the second position.
2. A powder driven fastening tool according to claim 1, wherein the advance link further comprises a cam pin and the advancing lever further comprises a ramped cam slot, whereby the advancing lever pivots as the cam pin of the advance link follows the ramped cam slot of the advancing lever.
3. A powder driven fastening tool according to claim 2, wherein the cam pin is located at a first position along the cam slot when the trigger is in the first position, and wherein the cam pin is located at a second position along the cam slot when the trigger is in the second position.
4. A powder driven fastening tool according to claim 1, wherein the advancing lever is pivotally coupled to the tool by a pivot pin, whereby the strip engagement portion is disposed on one side of the pivot pin and the advancing lever is cammingly engaged with the advance link on another side of the pivot pin.
5. A powder driven fastening tool according to claim 4, wherein the pivot pin is connected to a housing of the firing mechanism.

6. A powder driven fastening tool according to claim 1, further comprising a firing chamber positioned along the channel between a barrel of the tool and the firing mechanism, the strip engagement portion being positioned toward the firing chamber when the strip engagement portion is in the first position, the strip engagement portion being positioned away from the firing chamber when the sleeve is in the second position.

7. A powder driven fastening tool according to claim 1, further comprising a spring disposed between the trigger and a trigger support of the tool, wherein the spring biases the trigger to the first position, whereby the trigger is movable to the second position against the bias of the spring.

8. A powder driven fastening tool according to claim 1, wherein the strip engagement portion includes a pawl for engaging with a notch of the cartridge strip.

9. A powder driven fastening tool according to claim 8, wherein the pawl is engaged with a first notch of the cartridge strip when the strip engagement portion is in the first position, and wherein the pawl is engaged with a second notch of the cartridge strip when the strip engagement portion is in the second position.

10. A powder driven fastening tool according to claim 9, wherein movement of said trigger into said second position of said trigger moves said pawl into engagement with said second notch of said cartridge strip only when said trigger has been depressed sufficiently to fire said tool.

11. A powder driven fastening tool according to claim 8, wherein the advancing lever further comprises a spring for biasing the pawl into engagement with the notch, wherein the pawl is movable into disengagement out of the notch against the bias of the spring.

12. A powder driven fastening tool according to claim 11, wherein said spring is deflected during said disengagement of said pawl out of said notch, and wherein trigger force can be controlled.

13. A powder driven fastening tool according to claim 1, further comprising a trigger lock preventing depression of said trigger until said tool is cocked.

“Cartridge Strip Advancing Mechanism  
For Fastener Driving Tool”

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14. A powder driven fastening tool according to claim 1, further comprising an adjustable connection between said trigger and said advance link to provide for fine tuning.